

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A method for fostering somatic embryogenic competence of a plant cell or tissue comprising contacting said plant cell or tissue with a pro-embryogenic arabinosylated arabinogalactan protein (AGP) composition comprising a protein having the amino acid sequence of SEQ ID NO: 25 a hydrophobic fraction of embryogenic AGP and maintaining the cell or tissue in culture to allow the cell or tissue to undergo somatic embryogenesis.
2. (original) The method of claim 1 wherein the plant cell or tissue is of cotton.
3. (previously presented) The method of claim 1 wherein the plant cell or tissue is selected from the group consisting of Upland cotton, Pima cotton, Egyptian cotton, Sea Island cotton, *G. hirsutum*, *G. barbadense*, tree cotton, Creole cotton, Levant cotton, Sturt's desert rose cotton, Thurber's cotton, and Hawaii cotton.
4. (previously presented) The method of claim 1 wherein the plant cell or tissue is of an elite cotton line.
5. (previously presented) The method of claim 1 wherein the pro-embryogenic AGP composition comprises embryogenic AGP of a cotton variety.
6. (previously presented) The method of claim 1 wherein said AGP composition comprises AGP hydrophobic peak #1 from embryogenic callus from a cotton variety selected from the group consisting of Coker 315, Siokra 1-4, and Sicala 40 at a concentration between about 0.008 and about 0.8 mg/L, and wherein said

plant cell or tissue is of a cotton variety that is recalcitrant to somatic embryogenesis.

7. (original) The method of claim 5 wherein the pro-embryogenic AGP composition comprises embryogenic AGP selected from the group consisting of de-glycosylated AGP and de-arabinosylated AGP.
8. (canceled)
9. (previously presented) The method of claim 5 wherein the pro-embryogenic AGP is a thrombin digest of the protein of SEQ ID No: 25.
10. (canceled)
11. (currently amended) A method for regenerating a plant comprising:
 - a) harvesting a plant cell or tissue from a first plant;
 - b) contacting said plant cell or tissue with an AGP composition comprising a protein having the amino acid sequence of SEQ ID NO: 25 hydrophobic fraction of embryogenic AGP effective for fostering somatic embryogenic competence; and
 - c) regenerating a second plant from said plant cell or tissue of step (b).
12. (original) The method of claim 11 comprising, prior to step (b), the step of transforming said plant cell or tissue whereby a transformed plant is regenerated.
13. (previously presented) The method of claim 11 wherein the plant is cotton.
14. (original) The method of claim 13 wherein the cotton plant is a variety selected from the group consisting of Upland cotton, Pima cotton, Egyptian cotton, Sea

Island cotton, *G. hirsutum*, *G. barbadense*, tree cotton, Creole cotton, Levant cotton, Sturt's desert rose cotton, Thurber's cotton, and Hawaii cotton.

15. (original) The method of claim 13 wherein the cotton plant is of an elite cotton line.
16. (previously presented) The method of claim 13 wherein the AGP composition comprises an embryogenic AGP of a cotton variety.
17. (original) The method of claim 16 wherein the AGP composition effective for fostering somatic embryogenesis comprises pro-embryogenic AGP selected from the group consisting of de-glycosylated and de-arabinosylated AGP.
18. (canceled)
19. (currently amended) The method of claim 17 wherein the pro-embryogenic AGP is a thrombin digest of the protein of SEQ ID No: 25.
20. (canceled)
21. (currently amended) A pro-embryogenic arabinogalactan protein (AGP) AGP composition comprising a protein having the amino acid sequence of SEQ ID NO: 25 or a thrombin digest thereof a hydrophobic fraction of embryogenic AGP of cotton.
22. (original) The composition of claim 21 wherein the AGP is de-glycosylated or de-arabinosylated.

23. (currently amended) ~~A pro-embryogenic AGP composition~~ The composition of claim 21 comprising a protein comprising a phytocyanin-like domain of an embryogenic AGP.
24. (currently amended) ~~A pro-embryogenic AGP composition according to claim 23 comprising~~ The composition of claim 21 wherein the AGP composition comprises a protein having the sequence of SEQ ID NO:25.
25. (currently amended) The composition of claim 21 ~~23 comprising wherein the AGP composition comprises~~ a thrombin digest of the protein of SEQ ID No: 25.
- 26 – 28 (canceled)
29. (currently amended) A method of making pro-embryogenic AGP by expressing a protein having the amino acid sequence of SEQ ID No: 25 comprising a phytocyanin-like domain of an embryogenic AGP.
- 30 – 31 (canceled)
32. (currently amended) The method of claim 29 ~~30~~ comprising the added step of contacting the expressed protein with thrombin.